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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,371	01/22/2004	Hideo Miyazawa	040014	2430
23850	7590	12/22/2004	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP			WALSH, DANIEL I	
1725 K STREET, NW			ART UNIT	
SUITE 1000			PAPER NUMBER	
WASHINGTON, DC 20006			2876	

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/761,371

Applicant(s)

MIYAZAWA ET AL.

Examiner

Daniel I Walsh

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-12 and 14-19 is/are rejected.
- 7) ☒ Claim(s) 6, 13 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1-04, 7-04</u> . | 6) <input type="checkbox"/> Other: ____  |

### DETAILED ACTION

1. Receipt is acknowledged of the IDS of 22 January 2004 and 28 July 2004.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-5, 7-12, and 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over He et al. (US 6238213)

Re claims 1, 8, and 15, He et al. teaches a barcode reader with an optical scanner that scans a barcode to obtain signal strength of light reflected from bars of the code, an extracting unit that extracts edge data including a plurality of edges and the signal strength corresponding to changes from black to white, and vice versa, emphasizing edge data that satisfies a

predetermined condition, making a ternary judgment of each edge based on the edge emphasized, and decodes the result (col 1, lines 50+). The Examiner notes that edges that satisfy a certain condition are emphasized/recognized as edges as they are filtered (col 6, lines 30+), and a ternary judgment is made and the barcode is decoded (h1, h2, and h3 are interpreted as ternarized judgments; see col 6, lines 42+). Though He et al. is silent to separate units to perform the task, the Examiner notes that the limitations are taught via the prior art system, and it within the skill in the art that separate units be used to complete the required steps.

Re claims 2, 9, and 16, the Examiner notes that the thick bars are emphasized when detected, as both thin and thick bars are parts of barcodes, as is well known and conventional in the art (see also col 6, lines 50+).

Re claims 3, 10, and 17, the Examiner notes that excessive widths are emphasized, as long as it meets the conditions set forth in the system for recognizing edge transitions for decoding, as relative widths are also measured.

Re claims 4, 11, and 18 the Examiner notes that amplitudes above a predetermined threshold value are detected (claim 6). Though the figures illustrate the waveform as a histogram, the Examiner notes that a waveform of time on the x-axis and amplitude on the y-axis is used to generate the histogram. Accordingly, the Examiner notes that the choice of using the histogram or another type of graphical/visual method to determine edges is well within the skill in the art. The choice to use a histogram or a plot of amplitude versus time, is a matter of design variation, motivated by displaying the data in a usable format, whether it be amplitude versus time, or a histogram, as the data captured to generate the displays are the same, and choosing how to display the data is an obvious expedient.

Re claims 5, 12, and 19, the expression of the data has been discussed above re claim 4. Further, the Examiner notes that when an edge has a frequency of a module greater than a predetermined threshold value (interpreted as a width greater than a threshold width) it is detected, where the Examiner notes that a narrow/singlewidth can be interpreted as a threshold value, as doublewidths (wide/saturated edges/bars) are detected.

Re claims 7 and 14, it has been discussed above that thresholds (interpreted as filters) as used to determine edge transitions. Accordingly, it would be obvious to an artisan of ordinary skill in the art to set the filter characteristics in order to filter out invalid transitions. Though the prior art is specifically silent to a transversal filter, the setting of a filter, to set thresholds, for example, is well within the skill in the art. Selecting a specific type of filter to produce an expected result is an obvious expedient.

#### ***Allowable Subject Matter***

3. Claims 6, 13, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record is silent to the edge emphasizing unit causes a change in emphasizing characteristics that emphasize an amplitude of the edge, based on the frequency of the module (interpreted as width of a bar/space).

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Lei (US 5,767,497), Akeda (UA 5,801,369), Hecht et al. (US 5,969,325), Watanabe et al. (US 5,979,765), Iwaguchi et al. (US 6,334,572), Hecht et al. (US 6,386,454), Ackley (US 6,478,223), Gettys (US 6,478,224), Davis et al. (US 6,494,376), Coleman et al. (US 6,499,662), Schum et al. (US 2001/0035458), Andreasson et al. (US 2002/0021835), Tsi et al. (US 2002/0162890), Iwaguchi et al. (US 2004/019784), Miyazawa et al. (US 2004/0164158), Agabra et al. (US 6,126,075), and Goto et al. (US 6,050,489).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Walsh whose telephone number is (571) 272-2409. The examiner can normally be reached between the hours of 7:30am to 4:00pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone numbers for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [daniel.walsh@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set for the in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

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D. Walsh

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read 'D. Walsh'.

DW  
12/7/04

A handwritten signature in black ink, appearing to read 'Karl D. Frech'.

KARL D. FRECH  
PRIMARY EXAMINER